

## **TAB 2**

## APPLICATION GUIDE<sup>1</sup>

- |                              |     |  |
|------------------------------|-----|--|
| App. pp. i-ii                | (A) | An Executive Summary on the first page of the application with the address, proposed height, and type of tower being proposed. A map showing the location of the proposed site should accompany the description;   |
| App. pp. 1-3                 | (B) | A brief description of the proposed facility, including the proposed locations and heights of each of the various proposed sites of the facility, including all candidates referred to in the application;   |
| App. pp. 1-3                 | (C) | A statement of the purpose for which the application is made;  |
| App. p. 1                    | (D) | A statement describing the statutory authority for such application;   |
| App. pp. 3-4                 | (E) | The exact legal name of each person seeking the authorization or relief and the address or principal place of business of each such person. If any applicant is a corporation, trust association, or other organized group, it shall also give the state under the laws of which it was created or organized;        |
| App. p. 4                    | (F) | The name, title, address and telephone number of the attorney or other person to whom correspondence or communications in regard to the application are to be addressed. Notice, orders, and other papers may be served upon the person so named, and such service shall be deemed to be service upon the applicant; |
| App. pp. 7-8<br>Attachment 1 | (G) | A statement of the need for the proposed facility with as much specific information as is practicable to demonstrate the need, including a description of the proposed system and how the proposed facility would eliminate or alleviate any existing deficiency or limitation;                                      |
| App. p. 11                   | (H) | A statement of the benefits expected from the proposed facility with as much specific information as is practicable;   |

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<sup>1</sup> This Application Guide is copied directly from the "Connecticut Siting Council Application Guide," Section VI, as amended June 23, 2004. References to the Regulations of Connecticut State Agencies ("RCSA") contained in the Guide have been omitted.

App. pp. 1-3, 9-12  
Attachment 1

- (I) A description of the proposed facility at the named sites including:
- (1) Height of the tower and its associated antennas including a maximum "not to exceed height" for the facility, which may be higher than the height proposed by the Applicant;
  - (2) Access roads and utility services;
  - (3) Special design features;
  - (4) Type, size, and number of transmitters and receivers, as well as the signal frequency and conservative worst-case and estimated operational level approximation of electro magnetic radio frequency power density levels (facility using FCC Office of Engineering and Technology Bulletin 65, August 1997) at the base of the tower base, site compound boundary where persons are likely to be exposed to maximum power densities from the facility;
  - (5) A map showing any fixed facilities with which the proposed facility would interact;
  - (6) The coverage signal strength, and integration of the proposed facility with any adjacent fixed facility, to be accompanied by multi-colored propagation maps of red, green and yellow (exact colors may differ depending on computer modeling used, but a legend is required to explain each color used) showing interfaces with any adjacent service areas, including a map scale and north arrows; and
  - (7) For cellular systems, a forecast of when maximum capacity would be reached for the proposed facility and for facilities that would be integrated with the proposed facility.

Attachment 1

(J) A description of the named sites, including:

- (1) The most recent U.S.G.S. topographic quadrangle map (scale 1 inch = 2,000 feet) marked to show the site of the facility and any significant changes within a one-mile radius of the site;
- (2) A map (scale not less than 1 inch = 200 feet) of the lot or tract on which the facility is proposed to be located showing the acreage and dimensions of such site, the name and location of adjoining public roads or the nearest public road, and the names of abutting owners and the portions of their lands abutting the site;
- (3) A site plan (scale not less than 1 inch = 40 feet) showing the proposed facility, set back radius, existing and proposed contour elevations, 100-year flood zones, waterways, wetlands, and all associated equipment and structures on the site;
- (4) Where relevant, a terrain profile showing the proposed facility and access road with existing and proposed grades; and
- (5) The most recent aerial photograph (scale not less than 1 inch = 1,000 feet) showing the proposed site, access roads, and all abutting properties.

Attachment 1

(K) A statement explaining mitigation measures for the proposed facility including:

- (1) Construction techniques designed specifically to minimize adverse effects on natural areas and sensitive areas;
- (2) Special design features made specifically to avoid or minimize adverse effects on natural areas and sensitive areas;
- (3) Establishment of vegetation proposed near residential, recreation, and scenic areas; and
- (4) Methods for preservation of vegetation for wildlife habitat and screening.

App. pp. 1-3 and 14-16  
Attachment 10

(L) A description of the existing and planned land uses of the named sites and surrounding areas;



App. pp. 11-14 Attachments 9 and 10	(M)	A description of the scenic, natural, historic, and recreational characteristics of the names sites and surrounding areas including officially designated nearby hiking trails and scenic roads;
Attachment 10	(N)	Sight line graphs to the named sites from visually impacted areas such as residential developments, recreational areas and historic sites;
Attachment 9	(O)	A list describing the type and height of all existing and proposed towers and facilities within a four mile radius within the site search area, or within any other area from which use of the proposed towers might be feasible from a location standpoint for purposes of the application;
App. pp. 10-11 Attachment 9	(P)	A description of efforts to share existing towers, or consolidate telecommunications antennas of public and private services onto the proposed facility including efforts to offer tower space, where feasible, at no charge for space for municipal antennas;
App. pp. 9-10 Attachment 1	(Q)	A description of technological alternatives and a statement containing justification for the proposed facility;
Attachment 8	(R)	A description of rejected sites with a U.S.G.S. topographic quadrangle map (scale 1 inch = 2,000 feet) marked to show the location of rejected sites;
Attachment 1	(S)	A detailed description and justification for the site(s) selected, including a description of siting criteria and the narrowing process by which other possible sites were considered and eliminated including, but not limited to, environmental effects, cost differential, coverage lost or gained, potential interference with other facilities, and signal loss due to geographic features compared to the proposed site(s);
App. pp. 13-14 Attachment 11	(T)	A statement describing hazards to human health, if any, with such supporting data and references to regulatory standards;
App. p. 18	(U)	A statement of estimated costs for site acquisition, construction, and equipment for a facility at the various proposed sites of the facility, including all candidates referred to in the application;

App. p. 18

- (V) A schedule showing the proposed program of site acquisition, construction, completion, operation and relocation or removal of existing facilities for the named sites;

App. p. 13

- (W) A statement indicating that, weather permitting, the applicant will raise a balloon with a diameter of at least three feet, at the sites of the various proposed sites of the facility, including all candidates referred to in the application, on the day of the Council's first hearing session on the application or at a time otherwise specified by the Council. For the convenience of the public, this event shall be publicly noticed at least 30 days prior to the hearing on the application as scheduled by the Council;

App. pp. 14-18  
Attachments 3, 10 and 11  
Bulk File Exhibit

- (X) Such information as any department or agency of the State exercising environmental controls may, by regulation, require including:
- (1) A listing of any federal, state, regional, district, and municipal agencies, including but not limited to the Federal Aviation Administration; Federal Communications Commission; State Historic Preservation Officer; State Department of Environmental Protection; and local conservation, inland wetland, and planning and zoning commissions with which reviews were conducted concerning the facility, including a copy of any agency position or decision with respect to the facility; and
  - (2) The most recent conservation, inland wetland, zoning, and plan of development documents of the municipality, including a description of the zoning classification of the site and surrounding areas, and a narrative summary of the consistency of the project with the Town's regulations and plans.

Attachment 1  
(Project Plans)

- (Y) Description of proposed site clearing for access road and compound including type of vegetation scheduled for removal and quantity of trees greater than six inches diameter at breast height and involvement with wetlands;

N/A

- (Z) Such information as the applicant may consider relevant.

### **TAB 3**

## CERTIFICATION OF SERVICE

I hereby certify that on this 27<sup>th</sup> day of July, 2006, copies of the Application and Attachments were sent by certified mail, return receipt requested, to the following:

### STATE OFFICIALS:

The Honorable Richard Blumenthal  
Attorney General  
Office of the Attorney General  
55 Elm Street  
Hartford, CT 06106

Gina McCarthy, Commissioner  
Connecticut Department of  
Environmental Protection  
79 Elm Street  
Hartford, CT 06106

J. Robert Galvin, M.D., M.P.H., Commissioner  
Department of Public Health  
and Addiction Services  
410 Capitol Avenue  
Post Office Box 340308, MS 13COM  
Hartford, CT 06134-0308

Karl J. Wagener, Executive Director  
Council on Environmental Quality  
79 Elm Street  
Post Office Box 5066  
Hartford, CT 06106

Donald W. Downes, Chairman  
Department of Public Utility Control  
Ten Franklin Square  
New Britain, CT 06051

Robert L. Genuario, Secretary  
Office of Policy and Management  
450 Capitol Avenue  
Hartford, CT 06134-1441



James Abromaitis, Commissioner  
Department of Economic and  
Community Development  
505 Hudson Street  
Hartford, CT 06106

Stephen E. Korta II, Commissioner  
Department of Transportation  
Post Office Box 317546  
Newington, CT 06131-7546

J. Paul Loether  
Division Director/Deputy State Historic Preservation Officer  
The Amos Bull House  
59 South Prospect Street  
Hartford, CT 06106

**BRISTOL CITY OFFICIALS:**

William T. Stortz  
Mayor  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

The Honorable Thomas A. Colapietro  
Senator  
Legislative Office Building, Room 3500  
Hartford, CT 06106

The Honorable William A. Hamzy  
Representative – 78<sup>th</sup> District  
2 Manor Road  
Terryville, CT 06786

Therese Pac  
City Clerk  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

William Veits  
Chairman  
City Planning Commission  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

Frank Johnson  
Chairman  
City Zoning Commission  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

Jerald Rafaniello  
Chairman  
Zoning Board of Appeals  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

Guy Morin  
Zoning Enforcement Officer  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

William Englert  
Chairman  
Inland Wetlands Commission  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

**PLYMOUTH TOWN OFFICIALS:**

Jan A. Krampitz  
Mayor  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

The Honorable Thomas A. Colapietro  
Senator  
Legislative Office Building, Room 3500  
Hartford, CT 06106

The Honorable William A. Hamzy  
Representative – 78<sup>th</sup> District  
2 Manor Road  
Terryville, CT 06786

Barbara K. Rockwell  
Town Clerk  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

Patrick Herzing  
Chairman  
Town Planning & Zoning Commission  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

Martin Sandshaw  
Chairman  
Zoning Board of Appeals  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

Ronald Mormile  
Zoning/Wetlands Enforcement Officer  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

Matthew Tellier  
Chairman  
Inland Wetlands Conservation Commission  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

Central Connecticut Regional Planning Agency  
225 North Main Street  
Bristol, CT 06010

Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554



Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103  
Telephone: (860) 275-8200  
Attorneys for Cellco Partnership d/b/a Verizon Wireless



## **TAB 4**

## LEGAL NOTICE

Notice is hereby given, pursuant to Section 16-50(b) of the Connecticut General Statutes and Regulations pertaining thereto, of an Application to be submitted to the Connecticut Siting Council ("Council") on or about July 27, 2006, by Cellco Partnership d/b/a Verizon Wireless ("Cellco" or the "Applicant"). The Application proposes the installation of a wireless telecommunications facility in the City of Bristol, Connecticut. The site location is a 55' x 70' leased area within a 65 acre parcel at the Pequabuck Gold Club, 1191 Terryville Avenue. At this site, Cellco proposes to construct a 120-foot monopole towers disguised as a flagpole and an associated equipment shelter located near the base of the tower to house radio equipment and an emergency generator. The facility will be design to accommodate additional carriers. The location and other features of the proposed facility are subject to change under provisions of Connecticut General Statutes § 16-50g et. seq.

Interested parties and residents of the City of Bristol or Town of Plymouth are invited to review the Application during normal business hours at any of the following offices:

Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

City Clerk  
City of Bristol  
111 North Main Street  
Bristol, CT 06010

Cellco Partnership d/b/a Verizon  
Wireless  
99 East River Drive  
East Hartford, CT 06108  
Town Clerk  
Town of Plymouth  
80 Main Street  
Terryville, CT 06786

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

CELLCO PARTNERSHIP d/b/a VERIZON  
WIRELESS

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103-3597  
(860) 275-8200  
Its Attorneys

## **TAB 5**

KENNETH C. BALDWIN

280 Trumbull Street  
Hartford, CT 06103-3597  
Main (860) 275-8200  
Fax (860) 275-8299  
kbaldwin@rc.com  
Direct (860) 275-8345

July 24, 2006

**Via Certified Mail Return Receipt Requested**

«Name\_and\_Address»

Re: **Cellco Partnership d/b/a Verizon Wireless  
Proposed Telecommunications Facility - Bristol, Connecticut**

Dear «Salutation»:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") will be submitting an application to the Connecticut Siting Council ("Council") on or about July 27, 2006, for approval of the construction of a telecommunications facility on property of the Pequabuck Golf Course, 1191 Terryville Road, Bristol, Connecticut.

The proposed facility would consist of a 120-foot self-supporting monopole towers disguised as a flagpole and a 12' x 30' equipment shelter all within a 55' x 70' leased area, immediately south of the existing maintenance buildings. The tower would be designed to accommodate multiple carriers.

The location and other features of the proposed facility are subject to change under the provisions of Connecticut General Statutes § 16-50g et seq.

State law provides that owners of record of property which abuts a parcel on which the proposed facility may be located must receive notice of the submission of this application. This notice is directed to you either because you may be an abutting land owner or as a courtesy notice.

If you have any questions concerning the application, please direct them to either the Connecticut Siting Council or me. My address and telephone number are listed above. The Siting Council may be reached at its New Britain, Connecticut office at (860) 827-2935.

Very truly yours,

Kenneth C. Baldwin



**ADJACENT PROPERTY OWNERS: PEQUABUCK GOLF CLUB**

SITE NAME: BRISTOL WEST – PEQUABUCK GOLF CLUB

OWNER NAME: PEQUABUCK GOLF CLUB OF BRISTOL, INC.

OWNER ADDRESS: 1191 TERRYVILLE ROAD (a/k/a 52 SCHOOL STREET), BRISTOL,  
CONNECTICUT 06781

ASSESSOR'S REFERENCE: MAP: 067 – LOTS: 027 AND 029

THE FOLLOWING INFORMATION WAS COLLECTED FROM THE TAX ASSESSOR'S  
RECORDS AND LAND RECORDS OF THE CITY OF BRISTOL AND THE TOWN OF  
PLYMOUTH. THE INFORMATION IS CURRENT AS OF JULY 19, 2006.

THE PARCEL IS ZONED R-40.

	<u>Parcel ID</u>	<u>Property Owner &amp; Mailing Address</u>	<u>Property Address</u>
1.	67/26	Tom's Used Auto Parts LLC c/o Thomas Cristofaro 39 Greer Road Burlington, CT 06013	578 Terryville Road
2.	67/26-1	Tom's Used Auto Parts LLC c/o Thomas Cristofaro 39 Greer Road Burlington, CT 06013	Terryville Road
3.	67/23-3	Thomas Cristofaro 39 Greer Road Burlington, CT 06013	Terryville Road
4.	67/27-1	City of Bristol 111 North Main Street Bristol, CT 06010	Clark Avenue
5.	67/27-1A	Thomas Cristofaro 39 Greer Road Burlington, CT 06013	Clark Avenue
6.	67/28	City of Bristol 111 North Main Street Bristol, CT 06010	1080 Terryville Avenue

	<b><u>Parcel ID</u></b>	<b><u>Property Owner &amp; Mailing Address</u></b>	<b><u>Property Address</u></b>
7.	67/29-1	City of Bristol 111 North Main Street Bristol, CT 06010	Clark Avenue
8.	51/100/1	Pequabuck Golf Club of Bristol Inc. P.O. Box 218 Pequabuck, CT 06781	50 School Street
9.	51/100/2	Kathryn L. Spies P.O. Box 154 Ocean Beach, NY 11770	46 School Street
10.	51/100/3	Jeffrey T. Stone 50 Hillside Place Bristol, CT 06010	42 School Street
11.	51/100/4	Wendy H. Wood 38 School Street Pequabuck, CT 06781	38 School Street
12.	51/100/5	Fred Taddei 34 School Street Terryville, CT 06786	34 School Street
13.	51/100/6	Gerald H. Grossman 30 School Street Pequabuck, CT 06781	30 School Street
14.	51/100/7	William F. and Melissa Kremmell, Jr. 28 School Street Terryville, CT 06786	28 School Street
15.	51/100/8	Tina Raboin and Ropert Pringle 26 School Street Pequabuck, CT 06781	26 School Street
16.	51/100/9	Harry and Diane M. Croce 22 School Street Pequabuck, CT 06781	22 School Street
17.	51/100/10	PS LLC P.O. Box 1 Terryville, CT 06786	16 School Street

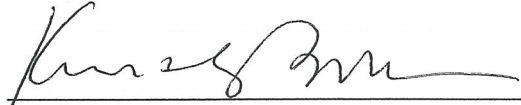
	<b><u>Parcel ID</u></b>	<b><u>Property Owner &amp; Mailing Address</u></b>	<b><u>Property Address</u></b>
18.	51/100/10A	Pequabuck Golf Club of Bristol P.O. Box 218 Pequabuck, CT 06781	Vacant Land (Part of Golf Course)
19.	51/100/11	JDG Properties P.O. Box 188 Pequabuck, CT 06786	8 School Street
20.	51/100/11-1	Dayton Properties LLC 31 Town Line Road Morris, CT 06763	10 School Street
21.	51/100/12	Boston Maine Corp. 1700 Iron Horse Park N. Billerica, MA 01862	Railroad R.O.W
22.	51/100/21A	Pequabuck Golf Club of Bristol Inc. P.O. Box 218 Pequabuck, CT 06781	56 School Street

CERTIFICATION OF SERVICE

I hereby certify that a copy of the foregoing letter was sent by certified mail, return receipt requested, to each of the parties on the attached list of abutting landowners.

7-24-06

Date



Kenneth C. Baldwin, Esq.

Robinson & Cole LLP

280 Trumbull Street

Hartford, Connecticut 06103

Attorneys for CELLCO PARTNERSHIP

d/b/a VERIZON WIRELESS



## **TAB 6**

**Federal Communications Commission  
Wireless Telecommunications Bureau**

**Radio Station Authorization (Reference Copy Only)**

**This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.**

**Licensee:** Cellco Partnership

ATTN Regulatory  
Cellco Partnership  
One Verizon Place (MC: GA3B1REG)  
Alpharetta, GA 30004-8511

<b>FCC Registration Number (FRN):</b> 0003290673	
<b>Call Sign:</b> KNLH251	<b>File Number:</b>
<b>Radio Service:</b> CW - PCS Broadband	

Grant Date	Effective Date	Expiration Date	Print Date
06/27/1997	08/27/2003	06/27/2007	01/19/2005

<b>Market Number:</b> BTA184	<b>Channel Block:</b> F	<b>Sub-Market Designator:</b> 0
<b>Market Name:</b> Hartford, CT		

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06/27/2002			

**Special Conditions or Waivers/Conditions** This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.716 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

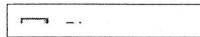
**Conditions**

Pursuant to Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. Section 309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the

Communications Act of 1934, as amended. See 47 U.S.C. Section 310(d). This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended. See 47 U.S.C. Section 706.

A graphical representation of the geographic area authorized to this call sign may be generated by selecting 'License Search' at the following web address: <http://www.fcc.gov/wtb/uls/>.

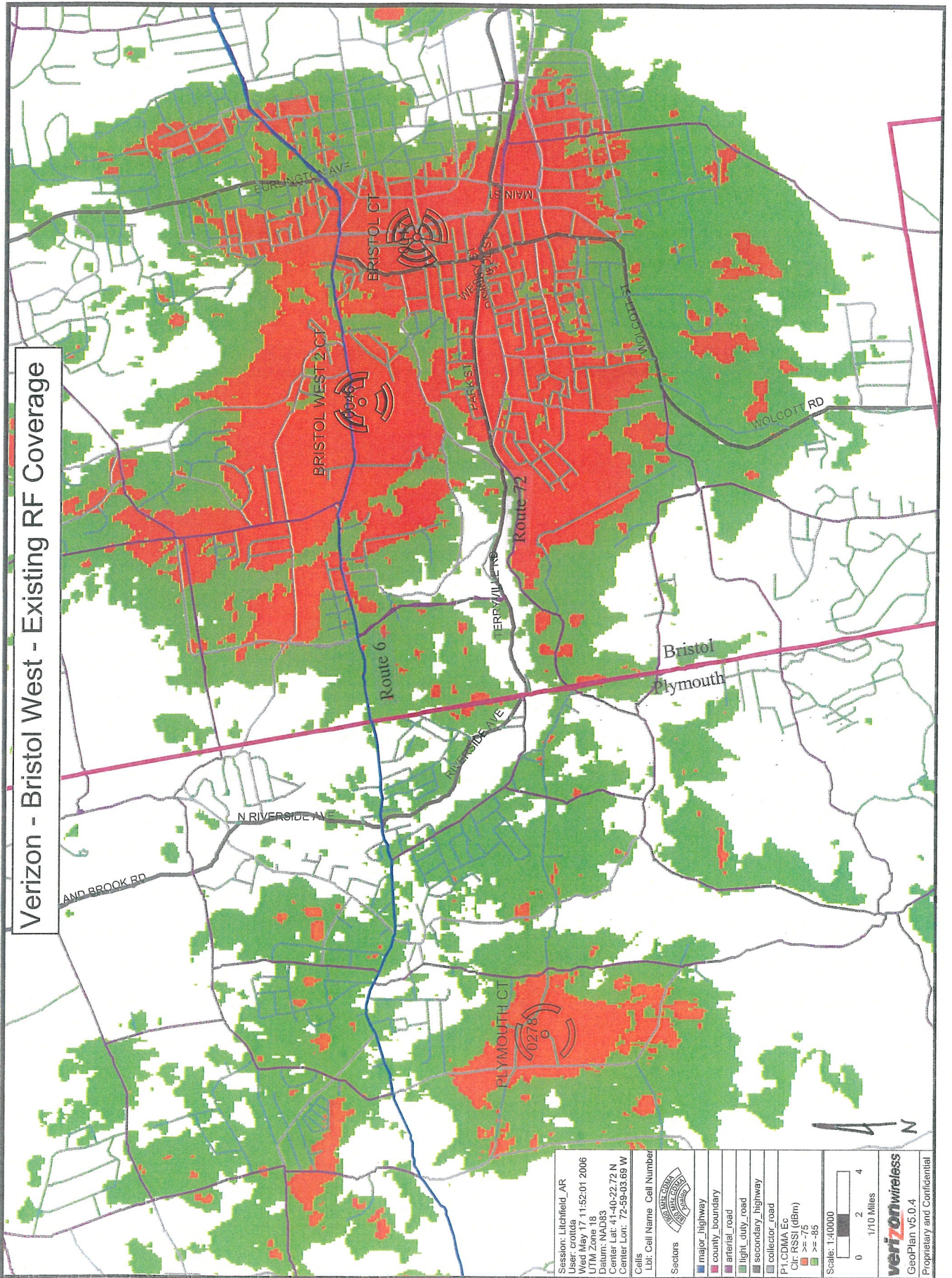
**FCC 601 - MB  
September 2002**



**TAB 7**

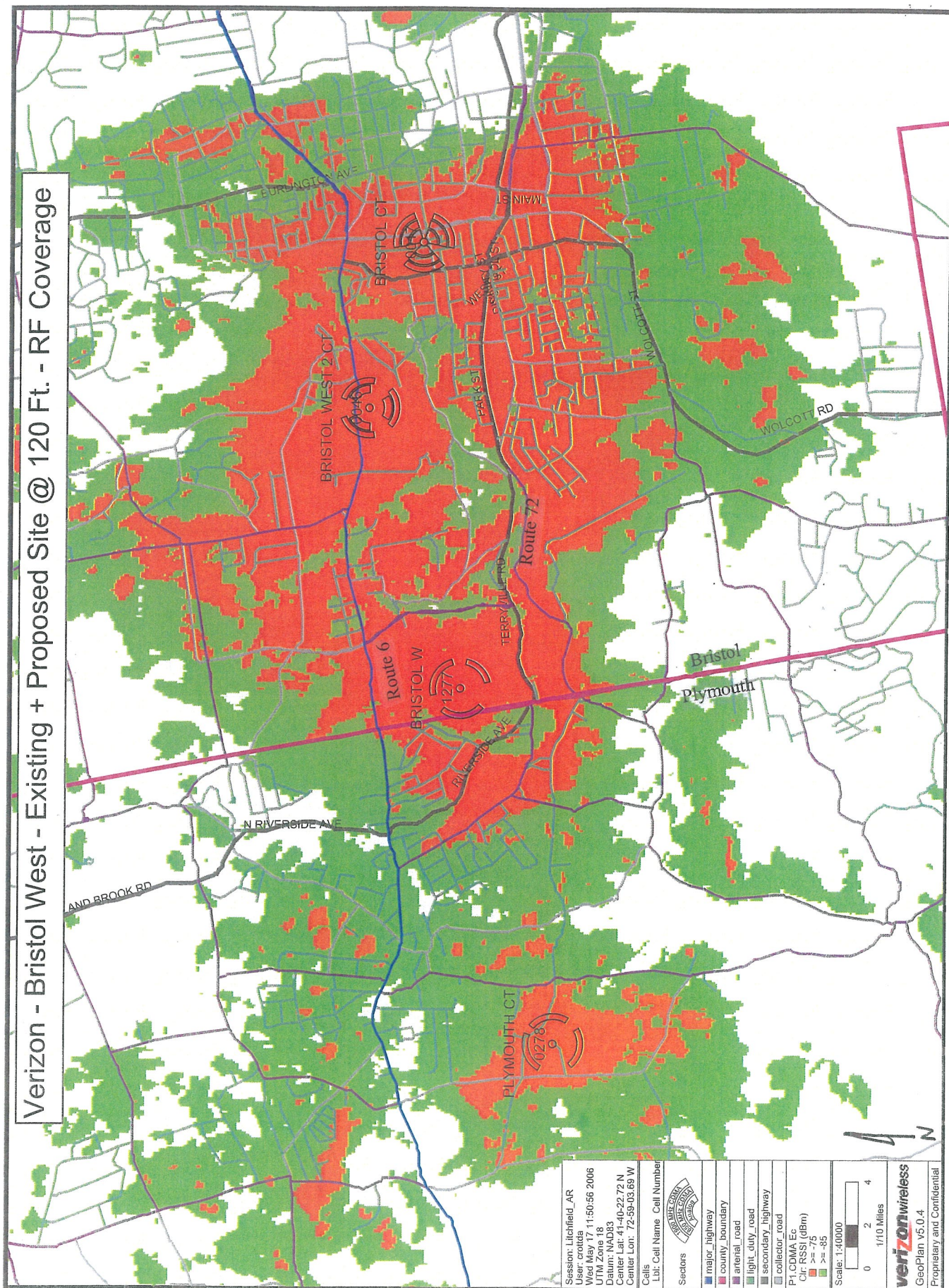


# Verizon - Bristol West - Existing RF Coverage





# Verizon - Bristol West - Existing + Proposed Site @ 120 Ft. - RF Coverage



## **TAB 8**



**Slant  $\pm 45^\circ$  Dual Polarized, Panel  $90^\circ$  / 12.5 dBd**

### Mechanical specifications

Length	1805 mm	71.1 in
Width	205 mm	8.1 in
Depth	145 mm	5.7 in
4) Weight	8.2 kg	18 lbs
Wind Area		
Front	0.37 m <sup>2</sup>	3.94 ft <sup>2</sup>
Side	0.26 m <sup>2</sup>	2.83 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)		
	>452 km/hr	>281 mph
Wind load @ 100 mph (161 km/hr)		
Front	558 N	126 lbs
Side	433 N	97.4 lbs

Antenna consisting of aluminum alloy with brass feed-lines covered by a UV safe fiberglass radome.

### Mounting & Downtilting:

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002

Downtilt bracket kit #36114003

### Electrical specifications

Frequency Range	806-900 MHz*
Impedance	50Ω
3) Connector	NE, E-DIN
1) VSWR	≤1.4:1
Polarization	Slant $\pm 45^\circ$
1) Isolation Between Ports	< -30 dB
1) Gain	12.5 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	90°
E-Plane	11°
1) Electrical Downtilt	0°
1) Null Fill	5%
Lightning Protection	Direct Ground

\*Also available up to 960 MHz. Consult your sales director for more information.

Patented Dipole Design: U.S. Patent No. 6,608,600 B2

<sup>1)</sup> Typical Values

<sup>2)</sup> Power Rating limited by connector only.

<sup>3)</sup> NE indicates an elongated N Connector.

E-DIN indicates an elongated DIN Connector.

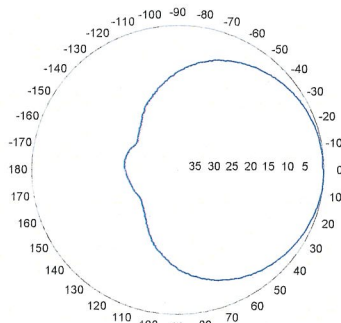
<sup>4)</sup> The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

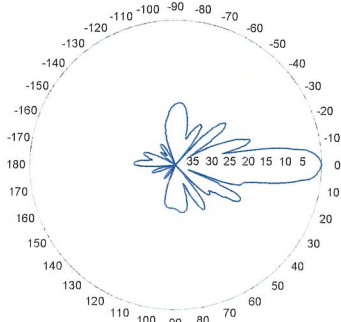
## BXA-80090/6CF

When ordering, replace "\_\_\_" with connector type.

### Radiation-pattern<sup>1)</sup>



Horizontal

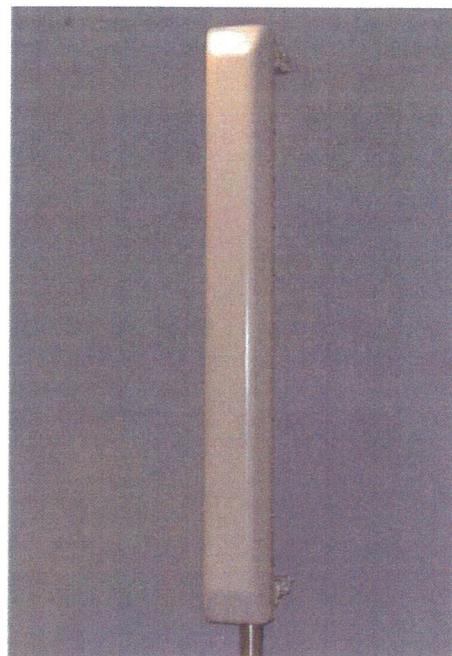


Vertical

### Featuring upper side lobe suppression.

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back Ratio.



**Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:**

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

Every Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connector only.

CF Denotes a Center-Fed Connector.

**806-900 MHz**

**Amphenol Antel, Inc.**  
The Antenna Technology Company

Revision Date: 6/3/04



# Slant +/- 45° Dual Polarized, Panel 85° / 18 dBi

## Mechanical specifications

Length	1840 mm	72.44 in
Width	154 mm	6.06 in
Depth	105 mm	4.13 in
4) Weight	5.897 kg	13 lbs
Wind Area		
Front	0.283 m <sup>2</sup>	3.05 ft <sup>2</sup>
Side	0.195 m <sup>2</sup>	2.1 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)		
	>237 km/hr	>148 mph
Wind load @ 100 mph (161 km/hr)		
Front	460 N	103.4 lbs
Side	372 N	83.5 lbs

Antenna consisting of aluminum alloy with brass feed-lines covered by a UV safe fiberglass radome.

## Mounting & Downtilting:

Wall mounted or pole tower mount with mounting brackets.

Mounting bracket kit #26799997

Downtilt bracket kit #26799999

The downtilt bracket kit includes the mounting bracket kit.

## Electrical specifications

Frequency Range	1850-1990 MHz
Impedance	50Ω
3) Connector	NE, E-DIN
1) VSWR	≤1.4:1
Polarization	Slant ± 45°
1) Isolation Between Ports	< -30 dB
1) Gain	18 dBi
2) Power Rating	250 W
1) Half Power Angle	
H-Plane	85°
E-Plane	5°
1) Electrical Downtilt	0°
1) Null Fill	5%
Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,597,324 B2

<sup>1)</sup> Typical Values

<sup>2)</sup> Power Rating limited by connector only.

<sup>3)</sup> NE indicates an elongated N Connector.

E-DIN indicates an elongated DIN Connector.

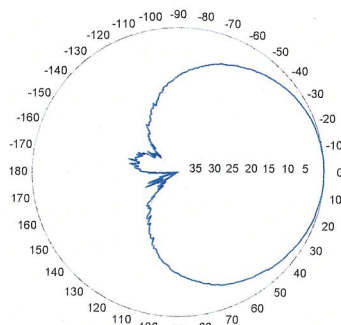
<sup>4)</sup> The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

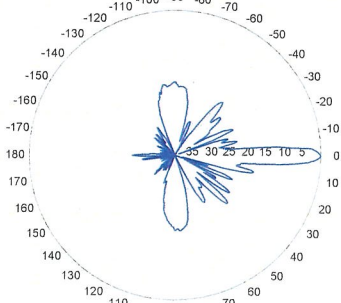
## BXA-185085/12CF

When ordering, replace "\_\_\_" with connector type.

## Radiation-pattern<sup>1)</sup>



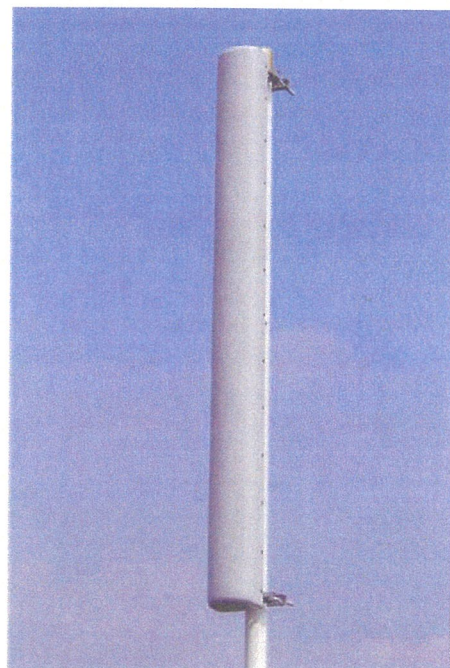
Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back Ratio.



**Amphenol Antel's  
Exclusive 3T (True  
Transmission Line  
Technology)  
Antenna Design:**

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

Every Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connector only.

CF Denotes a Center-Fed Connector.

**1850-1990 MHz**

**Amphenol  
Antel, Inc.**  
The Antenna Technology Company

Revision Date: 6/29/04



**Slant +/- 45° Dual Polarized, Panel 63° / 20 dBi**

### Mechanical specifications

Length	1840 mm	72.44 in
Width	154 mm	6.06 in
Depth	105 mm	4.13 in
4) Weight	6.8 kg	15 lbs
Wind Area		
Front	0.283 m <sup>2</sup>	3.05 ft <sup>2</sup>
Side	0.217 m <sup>2</sup>	2.34 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)		
	>237 km/hr	>148 mph
Wind load @ 100 mph (161 km/hr)		
Front	460 N	103.4 lbs
Side	372 N	83.5 lbs

Antenna consisting of aluminum alloy with brass feed-lines covered by a UV safe fiberglass radome.

### Mounting & Downtilting:

Wall mounted or pole tower mount with mounting brackets.

Mounting bracket kit #26799997

Downtilt bracket kit #26799999

The downtilt bracket kit includes the mounting bracket kit.

### Electrical specifications

Frequency Range	1850-1990 MHz
Impedance	50Ω
3) Connector	NE, E-DIN
1) VSWR	≤1.4:1
Polarization	Slant ± 45°
1) Isolation Between Ports	< -30 dB
1) Gain	20 dBi
2) Power Rating	250 W
1) Half Power Angle	
H-Plane	63°
E-Plane	5°
1) Electrical Downtilt	0°
1) Null Fill	5%
Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,597,324 B2

<sup>1)</sup> Typical Values

<sup>2)</sup> Power Rating limited by connector only.

<sup>3)</sup> NE indicates an elongated N Connector.

E-DIN indicates an elongated DIN Connector.

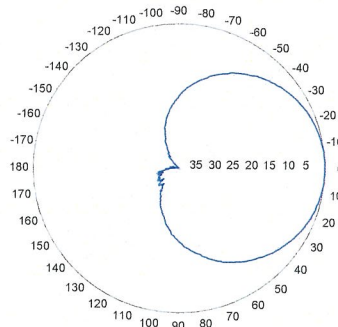
<sup>4)</sup> The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

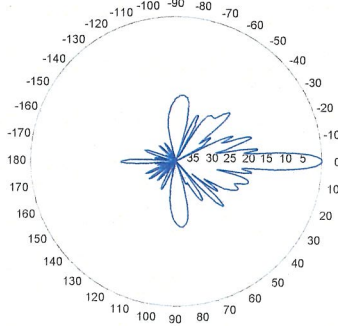
## BXA-185063/12CF

When ordering, replace "\_\_\_" with connector type.

### Radiation-pattern<sup>1)</sup>



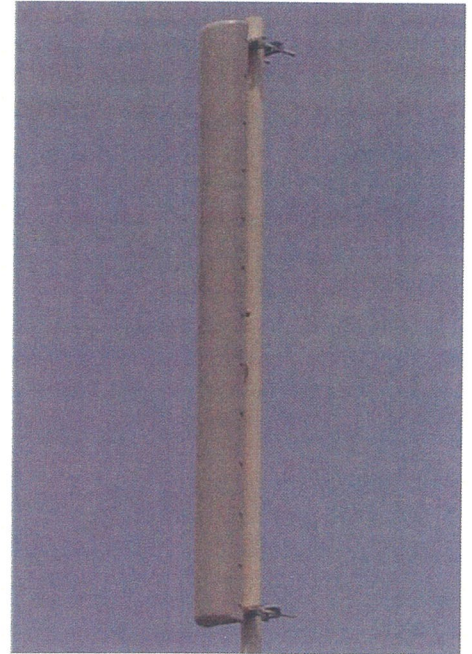
Horizontal



Vertical

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**1850-1990 MHz**

**Amphenol  
Antel, Inc.**  
The Antenna Technology Company

Revision Date: 1/27/05